

I, Randy Scott, Ph.D. declare and say as follows:

- 1. I hold a Bachelor or Science degree in Chemistry from Emporia State University and a Ph.D. in Biochemistry from the University of Kansas.
- 2. I am Chairman and Chief Executive Officer of Genomic Health, Inc., a life science company founded in August of 2000 located in Redwood City, California, conducting sophisticated genomic research to develop clinically validated molecular diagnostics, which provide individualized information on the likelihood of disease recurrence and response to certain types of therapy.
- 3. In 1991, I co-founded Incyte Pharmaceuticals, Inc., the world's first genomic information business. I served the company in multiple capacities, including Chairman of the Board from August 2000 to December 2001, President from January 1997 to August 2000, and Chief Scientific Officer from March 1995 to August 2000. Under my leadership, Incyte has created the LifeSeq Gold® gene sequence and expression database, an industry standard and the most comprehensive collection of biological information in the world. I have also led Incyte to expand its focus beyond gene sequence databases to include the research and application of gene expression, SNPs (single nucleotide polymorphisms), and proteomics.
- 4. I am an inventor on several issued patents, and authored over 40 scientific publications in the fields of protein biology, gene discovery, and cancer.
 - 5. My Curriculum Vitae is attached to and serves part of this Declaration.
- 6. All statements made in this Declaration are based on my more than 15 years of personal experience with the DNA microarray technique and its various uses in the diagnostic and therapeutic fields, and my familiarity with the relevant art.
- 7. The DNA microarray technology is based on hybridizing arrayed nucleic acid probes of known identity with target nucleic acid to determine the identity and/or expression levels (abundance) of target genes. DNA microarrays work by exploiting the ability of a given

mRNA molecule to hybridize to the DNA template from which it originated. By using an array containing many DNA samples, scientists can determine, in a single experiment, the expression levels of hundreds or thousands of genes within a sample by measuring the amount of mRNA bound to each site on the array. The amount of mRNA bound to the spots on the microarray is precisely measured, generating a profile of gene expression in the sample.

- 8. DNA microarray analysis has been extensively used in drug development and in diagnosis of various diseases. For instance, if a certain gene is over-expressed in a particular form of cancer relative to normal tissue, researchers use microarray chips to determine whether a drug candidate will reduce over-expression, and thereby cause cancer remission. In addition, if a gene has been identified to be over-expressed in a certain disease, such as a certain type of cancer, it can be used to diagnose that disease. Due to its importance in drug discovery and in the field of diagnostics, microarray technology has not only become a laboratory mainstay but also created a world-wide market of over \$600 million in the year of 2005. A long line of companies, including Incyte, Affymetix, Agilent, Applied Biosystems, and Amersham Biosciences, made microarray technology a core of their business.
- 9. Correlation between mRNA and protein levels can be assessed by a variety of methods suitable for measuring protein expression levels, including, for example, SDS-polyacrylamide gel electrophoresis (SDS-PAGE), two-dimensional fluorescence-difference gel electrophoresis (DIGE), mass spectrometric approaches, microsequencing, and a combination of these and similar known techniques, however, direct measurement of protein expression levels remains non-trivial.
- 10. One reason for the success and wide-spread use of the DNA microarray technique, which has led to the emergence of a new industry, is that generally there is a good correlation between mRNA levels determined by microarray analysis and expression levels of the translated protein. Although there are some exceptions on an individual gene basis, it has been a consensus in the scientific community that elevated mRNA levels are good predictors of increased abundance of the corresponding translated proteins in a particular tissue. Therefore, diagnostic markers and drug candidates can be readily and efficiently screened and identified using this technique, without the need to directly measure individual protein expression levels.

11. I further declare that all statements made herein of my own knowledge are true
and that all statements made on information and belief are believed to be true; and that these
statements were made with the knowledge that willful false statements and the like so made are
punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States
Code, and that such willful false statements may jeopardize the validity of the Patent.
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Date: August _// , 2006

Randy Scott, Ph.D.

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Randy W. Scott, Ph.D. Genomic Health 301 Penobscot Redwood City, CA 94022

EDUCATION:

1979 B.S., Chemistry, Emporia State University, Emporia Kansas

1983 Ph.D., Biochemistry, University of Kansas, Lawrence Kansas

WORK EXPERIENCE:

2000-present GENOMIC HEALTH, INC., Cofounder

Chairman & CEO, (2000-present)

Founded a new genomics company and raised over \$100 million to bring personalized medicine to clinical practice. Selected by Red Herring Magazine as one of the Top 100 private technology companies in North America in 2005

1991-2000 INCYTE, Cofounder

Chairman of the Board (2000-2001)

Helped lead the transition to a new management team and transition to drug development

President and Chief Scientific Officer (1997-2000)

Responsible for Research & Development, Operations, Marketing & Sales. Built the world's first genomic information business with peak sales of over \$200 million per year including 19 out of the worlds top 20 pharmaceutical companies as subscribers

Vice President and Chief Scientific Officer (1991-1997)

Built recombinant DNA therapeutic product portfolio and led the launch of the genomics business

1985-91 INVITRON CORPORATION

• Sr. Director of Research (1998-1991)

Responsible for Research & Development.

• Director of Protein Biochemistry (1985-1988)

Responsible for building the protein purification group for a cGMP manufacturing facility producing recombinant proteins, including monoclonal antibodies, tPA and Factor VIII.

1983-85 UNIGENE LABORATORIES, Fairfield, New Jersey

Sr. Scientist, Dept. of Protein Biochemistry

Led effort to work on IgA proteases linked to meningococcal infections

OTHER EXPERIENCE:

2005- Present AMERICAN CLINICAL LABORATORY ASSOCIATION

Member, Board of Directors

1997-2000 DIADEXUS, INC., Cofounder

Member, Board of Directors, (1997-2000)

Worked with George Poste (CSO, SmithKline, Beecham) to establish a diagnostics joint venture between Incyte and SmithKline

Awards:

2001 Genome Technology Magazine 2001 All-Star

- 1999 Forbes Magazine list of Biotech's Top 25 Influential Insiders
- 1997 Ernst & Young/NASDAQ Silicon Valley Entrepreneur of the Year for Life Sciences
- 1987 Small Business Innovation Research Grant Award (Principal Investigator): "Azurophil-Derived Bactericidal Factor" Grant # SSS-5 (K) 1R43AI24409-011987
- 1983 Phillip Newmark Research Award, University of Kansas, 1983
- 1982 Borgendale Graduate Seminar Award, University of Kansas.

Publications:

- Low, D.A., Cunningham, D.D., Scott, R.W., and Baker, J.B., "Interactions of Serine Proteases with Human Fibroblasts: Regulation by Protease Nexin, A Cellular Component with Similarities to Antithrombin III." in Receptor-Mediated Binding and Internalization of Toxins and Hormones (Middlebrook, J.L. and Kohn, L.S. eds.) pp. 259-270, Academic Press, New York (1982).
- Low, D.A., Scott, R.W., Baker J.B., and Cunningham, D.D., Cells Regulate their Mitogenic Response to Thrombin through Release of Protease Nexin. Nature 298, 476-478 (1982).
- Scott, R.W., "Purification, Characterization, and Functional Studies of Protease Nexin." Ph.D. Thesis, University of Kansas (1983).
- Scott, R.W., Eaton, D.L., Duran, N. and Baker, J.B. Regulation of Extracellular Plasminogen Activator by Human Fibroblasts. The Role of Protease Nexin. <u>J. Biol. Chem.</u> 258, 4397-4403 (1983).
- Scott, R.W., and Baker, J.B., Purification of Human Protease Nexin. <u>J.Biol. Chem.</u> 258, 10439-10444 (1983).
- Eaton, D.L., Scott, R.W., and Baker, J.B., Purification of Human Fibroblast Urokinase Proenzyme and Analysis of its Regulation by Proteases and Protease Nexin. <u>J. Biol. Chem.</u> 259, 6241-6247 (1984).
- Scott, R.W., Bergman, B., Bajpai, A., Hersh, R., Rodriquez, H., Jones, B.N., Barreda, C., Watts, S., and Baker, J.B. Protease Nexin: Properties and a Modified Purification Procedure. <u>J.Biol. Chem.</u> 7029-7034 (1985).
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- Scott, R.W., Duffy, S.A., Moellering, B.J., and Prior, C., Purification of Monoclonal Antibodies from Large-Scale Mammalian Cell Culture Perfusion Systems. <u>Biotechnology Progress</u> 3, 49-56 (1987).
- Baker, J.B., McGrogan, M., Simonsen, C.C., Scott, R.W., Gronke, R.S. and Honeyman, A., "Protease Nexin I. Structure and Potential Functions." In The Pharmacology and Toxicology of Proteins, Winkelhake, J.L., Holcenberg, J.S., eds., Alan R. Liss, Inc., New York, (1987).
- Scott R.W., "Large-scale Production of Biopharmaceuticals from Mammalian Cells" in Clinical Applications of Genetic Engineering (Larry C. Lasky and JoAnn Edwards-Moulds eds.) American Association of Blood Banks, Arlington, Virginia (1987).
- McGrogan, M., Kennedy, J., Li, M.P., Hsu, C., Scott, R.W., Simonsen, C.C., and Baker, J.B., Molecular Cloning and Expression of Two Forms of Human Protease Nexin I, <u>Bio/Technology</u> 6: 172 (1988).

- Otsuka FL, Cance WG, Dilley WG, Scott RW, Davie JM, Welch MJ, Wells SA Jr., A Potential New Radiopharmaceutical for Parathyroid Imaging: Radiolabeled Parathyroid-specific Monoclonal Antibody I. Evaluation of 125-I-labeled Antibody in a Nude Mouse Model System. Int. J. Rad. Appl. Instrum. B. 15:305-11, 1988
- Otsuka FL, Cance WG, Dilley WG, Scott RW, Davie JM, Wells SA Jr., Welch MJ A Potential New Radiopharmaceutical for Parathyroid Imaging: Radiolabeled Parathyroid-specific Monoclonal Antibody II. Comparison of 125-I and 111-In-labeled Antibodies. Int. J. Rad. Appl. Instrum. B. 15:305-11, 1988
- Prior, C.P., Doyle, K.R., Duffy, S.A., Hope, J.A., Moellering, B.J., Prior, G.M., Scott, R.W. and Tolbert, W.R. The Recovery of Highly Purified Biopharmaceuticals from Perfusion Cell Culture Bioreactors. <u>J. Parenteral Science and Technology</u> 43: 15-23 (1989).
- McGrogan, M., Simonsen, C., Scott, R., Griffith, J., Ellis, N., Kennedy, J., Campanelli, D., Nathan, C., and Gabay, J., Isolation of a Complementary DNA Clone Encoding a Precursor to Human Eosinophil Major Basic Protein. J. Exp. Med. 168: 2295-2308 (1988).
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- Gabay, J.E., Scott, R.W., Campanelli, D., Griffith, J., Wilde, C., Marra, M.N., Seeger, M., and Nathan, C.F., Antibiotic Proteins of Human Polymorphonuclear Leukocytes, <u>Proc. Natl. Acad. Sci.</u> 86: 5610-5614 (1989).
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Fisher CJ Jr., Marra MN, Palardy JE, Marchbanks CR, Scott RW, Opal SM Human Neutrophil Bactericidal/Permeability-Increasing Protein Reduces Mortality Rate from Endotoxin Challenge: a Placebo-Controlled Study. Crit Care Med 22:553-8, 1994

Rogy MA, Oldenburg HS, Calvano SE, Montegut WJ, Stackpole SA, Van Zee KJ, Marra MN, Scott RW, Seilhammer JJ, Moldawer LL. The Role of Bactericidal/Permeability-Increasing Protein in the Treatment of Primate Bacteremia and Septic Shock. J Clin. Immunol. 14: 120-33, 1994

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Wilde CG, Hawkins PR, Coleman RT, Levine WB, Delegeane AM, Okamoto PM, Ito LY, Scott RW, Seilhamer JJ, DNA Cell Biol. 13:711-8, 1994

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Zweiger, G., Scott R.W., From Expressed Sequence tags to "epigenomics": an Understanding of Disease Processes. Curr. Opin. Biotechnology 8:684-7, 1997

Scott RW, Gene Patents and Other Genomic Inventions. Published Hearing before the Subcommittee on Courts and Intellectual Property of the Committee on the Judiciary House of Representatives, One Hundred Sixth Congress, Second Session, July 13, 2000 Serial No. 121. pp. 44-55. U.S. Government Printing Office Washington, 2000

Issued Patents:

U.S. Patent # 4,898,826 Issued Feb. 6, 1990 A Method for Solubilization of Tissue-Type Plasminogen Activator.

U.S. Patent # 5,006,252 Issued April 9, 1991

Recombinant Purified Protease Nexin.

U.S. Patent #5,032,574 Issued July 16, 1991
Novel Antimicrobial Peptide, Compositions Containing Same and Uses Thereof.

U.S. Patent #5,087,368 Issued Feb. 11, 1992 Purified Protease Nexin

U.S. Patent #5,089,274 Issued Feb. 18, 1992
Use of Bactericidal/Permeability Increasing Protein or Biologically Active Analogs Thereof to Treat Endotoxin-Related Disorders

U.S. Patent #5,112,608 Issued May 12, 1992 Use of Protease Nexin-1 to Mediate Wound Healing

U.S. Patent #5,171,739 Issued December 15, 1992
Treatment of Endotoxin-Associated Shock and Prevention Thereof Using a BPI Protein

U.S. Patent #5,187,089 Issued Feb. 16, 1993 Protease Nexin-1 Variants Which Inhibit Elastase

U.S. Patent #5,196,196 Issued March 23, 1993 Use of Protease Nexin-1 in Wound Dressings

U.S. Patent #5,206,017 Issued Apr. 27, 1993 Use of Protease Nexin-1 as an Anti-inflammatory

U.S. Patent #5,210,027 Issued May 11, 1993
DNA Encoding Novel Antimicrobial Polypeptide and Methods for Obtaining Such Polypeptide

U.S. Patent #5,278,049 Issued January 11, 1994 Recombinant Molecule encoding Human Protease Nexin

U.S. Patent #5,234,912 Issued August 10, 1993
Pharmaceutical Compositions Comprising Recombinant BPI Proteins and a Lipid Carrier and Uses
Thereof

U.S. Patent #5,278,049 Issued January 11, 1994 Recombinant Molecule encoding Human Protease Nexin

U.S. Patent #5,308,834 Issued May 3, 1994
Treatment of Endotoxin-Associated Shock and Prevention Thereof Using BPI Protein

U.S. Patent #5,326,562 Issued July 5, 1994
Pharmaceutical Dosage Unit for Treating Inflammation Comprising Protease Nexin-I

U.S. Patent #5,234,912 Issued August 10, 1993
Pharmaceutical Compositions Comprising Recombinant BPI Proteins and a Lipid Carrier and Uses

U.S. Patent #5,278,049 Issued January 11, 1994 Recombinant Molecule Encoding Human Protease Nexin

U.S. Patent #5,326,562 Issued July 5, 1994
Pharmaceutical Dosage Unit for Treating Inflammation Comprising Protease Nexin-1

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Recombinant, Non-Glycosylated BPI Protein and Uses Thereof

- U.S. Patent #5,457,090 Issued October 10, 1995 Protease Nexin-I Variants
- U.S. Patent #5,470,825 Issued November 28, 1995 Basophil Granule Proteins
- U.S. Patent #5,476,839 Issued December 19, 1995 Basophil Granule Proteins
- U.S. Patent #5,495,001 Issued February 27, 1996 Recombinant Purified Protease Nexin
- U.S. Patent #5,747,283 Issued May 5, 1998 Basophil Granule Proteins
- U.S. Patent #5,770,694 Issued June 23, 1998 Genetically Engineered BPI Variant Proteins
- U.S. Patent #5,840,484 Issued November 24, 1998 Comparative Gene Transcript Analysis
- U.S. Patent #6,114,114 Issued September 5, 2000 Comparative Gene Transcript Analysis
- U.S. Patent #6,093,801 Issued July 25, 2000 Recombinant Analogs of Bactericidal/Permeability Increasing Protein
- U.S. Patent #6,160,104 Issued December 12, 2000 Markers for Peroxisomal Proliferators
- U.S. Patent #6,160,105 Issued December 12, 2000 Monitoring Toxicological Responses
- U.S. Patent #6,265,187 Issued July 24, 2001 Recombinant Endotoxin Neutralizing Proteins
- U.S. Patent #6,403,778 Issued June 11, 2002 Toxicological Response Markers
- U.S. Patent #6,372,431 Issued April 16, 2002 Mammalian Toxicological Response Markers
- U.S. Patent #6,553,317 Issued April 22, 2003
 Relational database and system for storing information relating to biomolecular sequences and reagents